

Patent Application Serial No. _____

**PENDING CLAIMS AFTER ENTRY OF
PRELIMINARY AMENDMENT
MAILED SEPTEMBER 27, 2001**

38. A method of manufacturing a modified atmosphere package, comprising:
supplying a package, a first layer having at least a portion being substantially permeable to oxygen and a second layer being substantially impermeable to oxygen;
placing a retail cut of raw meat within the package;
supplying a mixture of gases within the package, the gas mixture comprising from about 0.1 to about 0.8 vol.% carbon monoxide and at least one other gas to form a low oxygen environment so as to form carboxymyoglobin on a surface of the raw meat;
removing oxygen within the package so as to sufficiently reduce an oxygen level therein so as to inhibit or prevent the formation of metmyoglobin on the surface of the raw meat;
sealing the first layer to the package; and
sealing the second layer to at least one of the package and the first layer.

39. The method of claim 38, wherein a pocket is formed between the first layer and the second layer.

40. The method of claim 38, wherein the second layer is at least sealed to the first layer and the second layer is adapted to be peelable from the first layer.

41. The method of claim 38, wherein the package includes a bottom wall, a continuous side wall, and a continuous rim, the continuous side wall encompassing the bottom wall and extending upwardly and outwardly from the bottom wall, the continuous rim encompassing an upper edge of the continuous side wall and projecting generally laterally outwardly therefrom.

42. The method of claim 38 further including the step of removing the second layer.

43. The method of claim 38 further including supplying an oxygen scavenger.

44. The method of claim 38, wherein the oxygen level in the package is less than 1,000 ppm.

45. The method of claim 38, wherein the oxygen level in the package is less than about 500 ppm.

46. The method of claim 38, wherein the step of removing oxygen from the package includes evacuating the package.

47. The method of claim 38, wherein the step of removing oxygen from the package includes flushing the package with the gas mixture.

48. The method of claim 38, wherein the gas mixture further comprises nitrogen, carbon dioxide or the combination thereof.

49. The method of claim 38, wherein the gas mixture consists essentially of from about 0.1 to about 0.8 vol.% carbon monoxide, from about 40 to about 80 vol.% nitrogen and from about 20 to about 60 vol.% carbon dioxide.

50. The method of claim 38, wherein the gas mixture consists of from about 0.1 vol.% to about 0.6 vol.% carbon monoxide with the remainder carbon dioxide.

51. The method of claim 38 further including placing the retail cut of raw meat on a foam tray.

52. The method of claim 38, wherein the non-barrier portion comprises a polyolefin or a polyvinyl chloride overwrap.

53. The method of claim 38, wherein the gas mixture is supplied to the package such that the oxymyoglobin substantially converts directly to carboxymyoglobin.

54. The method of claim 38, wherein the oxymyoglobin substantially converts to deoxymyoglobin before the gas mixture is supplied to the package so as to convert deoxymyoglobin directly to carboxymyoglobin.

55. The method of claim 38, wherein the gas mixture comprises from about 0.3 to about 0.5 vol.% carbon monoxide.

56. The method of claim 38, wherein the gas mixture comprises from about 0.1 to about 0.5 vol.% carbon monoxide.

76. A modified atmosphere package, comprising:
a package being configured and sized to fully enclose a retail cut of raw meat, the package having a mixture of gases comprising from about 0.1 to about 0.8 vol.% carbon monoxide and at least one other gas to form a low oxygen environment so as to form carboxymyoglobin on a surface of the raw meat;
a first layer having at least a portion being substantially permeable to oxygen and sealed to the package; and
a second layer being substantially impermeable to oxygen and sealed to at least one of the package and the first layer.

77. The package of claim 76, wherein a pocket is formed between the first layer and the second layer.

78. The package of claim 76, wherein the second layer is at least sealed to the first layer and the second layer is adapted to be peelable from the first layer.

79. The package of claim 76, wherein the package includes a bottom wall, a

continuous side wall, and a continuous rim, the continuous side wall encompassing the bottom wall and extending upwardly and outwardly from the bottom wall, the continuous rim encompassing an upper edge of the continuous side wall and projecting laterally outwardly therefrom.

80. The package of claim 76 further including supplying an oxygen scavenger.

81. The package of claim 76, wherein the oxygen level in the package is less than 1,000 ppm.

82. The package of claim 81, wherein the oxygen level in the package is less than about 500 ppm.

83. The package of claim 76, wherein the gas mixture consists essentially of from about 0.1 to about 0.8 vol.% carbon monoxide, from about 40 to about 80 vol.% nitrogen and from about 20 to about 60 vol.% carbon dioxide.

84. The package of claim 77, wherein the package further includes a foam tray sized to hold the meat.

85. The package of claim 77, wherein the gas mixture comprises from about 0.3 to about 0.5 vol.% carbon monoxide.

86. The package of claim 77, wherein the gas mixture comprises from about 0.1 to about 0.5 vol.% carbon monoxide.